

Integrated Water Catchment Management

Year and Campus:	2012
Coordinator:	Dr Michael Stewardson (Engineering) Dr Philip Marren (MSLE)
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Overview:	<p>Integrated Water Catchment Management is offered as a major field of study in the Master of Environment degree.</p> <p>With global climate change and more extreme weather conditions, water catchments have never been under more pressure, and professionals with skills in their management are in high demand.</p> <p>Catchment management involves the integration of sound biophysical information with social and economic analysis. This is used to achieve the best outcomes for a catchment's natural resources and the people who live and work there.</p> <p>Students studying this major will look into the functioning of catchments and the constraints to improving catchment management; particularly, how these constraints can be eased.</p> <p>Integrated Water Catchment Management is appropriate for professionals working in soil and water regulation, land management, and conservation in the private and public sectors.</p> <p>The Office for Environmental Programs is looking for students with a first degree in physical science, life science, social science, engineering, forestry, horticulture or agriculture. Professional geologists, natural resource scientists and managers who wish to gain advanced knowledge of catchment management strategies in urban and rural environments would also benefit from studies in this field.</p> <p>Students can expect to find employment in regulatory agencies, local and state government authorities, environmental consulting companies, and industries concerned with land development, recreation and tourism.</p>
Objectives:	<p>Students who complete the Master of Environment will have:</p> <ul style="list-style-type: none"> • An advanced understanding of environmental issues • Advanced skills and techniques applicable to changing and managing the environment • An ability to evaluate and synthesise research and professional literature in the chosen stream or focus of study • An advanced understanding of the international context and sensitivities of environmental assessment <p>The graduate attributes for the Master of Environment are:</p> <ul style="list-style-type: none"> • Expertise in multidisciplinary understanding, analysis and research with an environmental focus • Collaborative approaches to environmental problem solving • Capacity to engage in critical social and sustainability questions <p>The Master of Environment generic skills are:</p> <ul style="list-style-type: none"> • Multidisciplinary and trans-disciplinary knowledge and research of environmental relevance • Collaborative environmental management skills • Capacity for independent learning across discipline boundaries
Structure & Available Subjects:	<p>Students will be required to complete the two core subjects, plus choose three subjects from the compulsory subject list and undertake electives to make up the balance of the award. The selection of electives is made in consultation with the Integrated Water Catchment Management major coordinator.</p> <p>For a current list of subjects offered in the Integrated Water Catchment Management major, please refer to the course information page at: http://www.environment.unimelb.edu.au/futurestudents/specialist_paths_of_study/integrated_catchment_management</p>

(http://www.oep.unimelb.edu.au/currentstudents/master_of_environment/specialist_paths_of_study/conservation,_restoration_and_landscape_management)

Subject Options:**Core Subjects**

Students are required to complete the subjects:

Subject	Study Period Commencement:	Credit Points:
MULT90004 Sustainability Policy and Management	March	12.50
MULT90005 Interdisciplinarity and the Environment	Semester 2	12.50

Compulsory Subjects

and choose 3 subjects from the list of:

Subject	Study Period Commencement:	Credit Points:
AGRI90066 Soil Science and Management	Semester 1	12.50
CVEN90019 Sustainable Water Resources Systems	Semester 2	12.50
GEOL90005 Hydrogeology	Semester 1	12.50
ENEN90028 Monitoring Environmental Impacts	Semester 2	12.50
GEOG90003 Integrated River & Catchment Management	Semester 1	12.50

Elective Subjects

plus undertake electives to make up the balance of the award. The recommended list of electives includes:

Subject	Study Period Commencement:	Credit Points:
DEVT90002 Internship in Development	January, Semester 1, Semester 2	12.50
ENST90002 Social Impact Assessment and Evaluation	Semester 2	12.50
EVSC90015 Environmental Impact Assessment	Semester 1	12.50
ENST90005 Environmental Policy	Semester 1	12.50
NRMT90002 Management of Plant and Animal Invasions	Semester 2	12.50
NRMT90003 Social Research Methods	Semester 1	12.50
ECON90016 Environmental Economics and Strategy	Semester 1	12.50
ENEN90031 Quantitative Environmental Modelling	Semester 1	12.50
GEOM90005 Remote Sensing	Semester 2	12.50
GEOM90008 Foundations of Spatial Information	Semester 1	12.50
ENEN90032 Environmental Analysis Tools	Semester 2	12.50
EVSC90010 Environmental Risk Assessment	Semester 1	12.50
EVSC90014 Environmental Risk Assessment	November	12.50
CHEM90007 Environmental Chemistry	Semester 1	12.50
ATOC90002 Climate Affairs	Semester 2	12.50

	LAWS70068 Environmental Law	September	12.50
	LAWS70185 Water Law & Natural Resources Management	February	12.50
	EVSC90010 Environmental Risk Assessment	Semester 1	12.50
	ENST90006 Environmental Research Review	Semester 1, Semester 2	12.50
	ENST90007 Environmental Research Topic	Semester 1, Semester 2	25
	ENST90016 Environmental Research Project	Semester 1, Semester 2	50
	ENST70001 Environmental Research Proj (long) MYE	Semester 1, Semester 2	25
	ENST90020 Environmental Research - Industry C	Semester 2	50
	ENST70002 Environmental Research - Industry D	Semester 1, Semester 2	25
Links to further information:	http://www.environment.unimelb.edu.au/		
Notes:	Other subjects may be approved at the discretion of the coordinator.		
Related Course(s):	Master of Environment		